

ADDITIONAL NOTES ON THE GENUS CITHAREXYLUM. VIII

Harold N. Moldenke

CITHAREXYLUM B. Juss.

Additional bibliography: Schnitzlein, Iconogr. Fam. Nat. 2: 137 Verbenac. [3]. 1856; Moldenke, Phytologia 31: 25, 334-360, 378-382, 384, 391, 393-396, & 407. 1975.

CITHAREXYLUM FRUTICOSUM L.

Additional bibliography: Moldenke, Phytologia 31: 338, 345, 346, 349, 356-360, 379-381, 391, & 394. 1975.

The E. L. Little 13390, distributed as C. fruticosum, is actually var. smallii Moldenke, while D. S. Correll 43855 is f. bahamense (Millsp.) Moldenke.

Additional citations: CUBA: Las Villas: J. G. Jack 4538 (Pd). Oriente: C. Wright 438 [no date] (Ms-30927). JAMAICA: Hespenheide, Hespenheide, Calver, & Ricklefs 1519 (Au-272090, N); G. R. Proctor 9506 (W-2585556); Stearn 67 (Ba); Wunderlin 5137 (N). HISPANIOLA: Dominican Republic: Gastony, Jones, & Norris 391 (W-2657622); A. H. Liogier 17415 (N, W-2649143), 17501 (N, W-2685028), 17657 (N), 19871 (N); Liogier & Liogier 20044 (N). PUERTO RICO: L. E. Gregory LEG.196 [Herb. Forest Serv. 99428] (W-2761683); A. A. Heller 4421 (Ms-30924); E. L. Little 13110 (N), 13176 (N), 13411 (N, W-2632966), 13741 (N); Stimson 3025 (Mi, N); Wadsworth 216 (Ws). PUERTO RICAN ISLANDS: Caja de Muertos: E. L. Little 21638 (N, W-2673649). LEEWARD ISLANDS: Dominica: Wilbur, Dunn, Hespenheide, & Wiseman 8236 (Mi). WINDWARD ISLANDS: Grenada: G. R. Proctor 16820 (W-2613838). VIRGIN ISLANDS: St. Croix: F. R. Fosberg 54060 (N, W-2699229), 54064 (N, W-2670117); E. L. Little 22031 (W-2705341); Little & Woodbury 23707 (N, W-2690100). CULTIVATED: Florida: Dress 1270 (Ba). Sri Lanka: Moldenke, Moldenke, & Jayasuriya 28137 (Ac, Ld, Pd, W-2764407).

CITHAREXYLUM FRUTICOSUM f. BAHAMENSE (Millsp.) Moldenke

Additional bibliography: Hocking, Excerpt. Bot. A.11: 503. 1967; Moldenke, Phytologia 14: 434. 1967; Moldenke, Biol. Abstr. 49: 4199. 1968; Moldenke, Fifth Summ. 1: 93, 107, 428, & 431 (1971) and 2: 859. 1971; Moldenke, Phytologia 31: 346 & 359. 1975.

Recent collectors describe this plant as a shrub, 4 m. tall, or a tree, 4-6.5 m. tall, the trunk 5-10 cm. in diameter at breast height, becoming slightly angled, the stems several, the bark light-brown, finely fissured and shaggy, or light-gray, smoothish and slightly fissured, the flowers fragrant, and the fruit black. The corollas are described as white of E. L. Little 16367 & 23816. They have found it growing in forests and in seasonal deciduous

forests, in hot dry scrub near the ocean, and in thickets around granite boulders, at altitudes of from sealevel to 200 feet, flowering in June and fruiting in February, March, and June. The vernacular name, "fiddlewood", is recorded for it. The inflorescences on Correll & Correll 42002 are gall-infested. Material has been misidentified and distributed in some herbaria as C. caudatum L.

Additional citations: BAHAMA ISLANDS: New Providence: Correll & Correll 42002 (N); O. Degener 19051 (Ba). San Salvador: D. S. Correll 43855 (N). VIRGIN ISLANDS: Tortola: E. L. Little 16367 (N); Shafer 1150 (N). Virgin Gorda: E. L. Little 23756 (N, W-2690192), 23816 (N, W-2690299), 26098 (N, W-2690353).

CITHAREXYLUM FRUTICOSUM var. BRITTONII Moldenke

Additional bibliography: Prain, Ind. Kew. Suppl. 5, imp. 1, 60 (1921) and 5, imp. 2, 60. 1960; Moldenke, Phytologia 14: 434. 1967; J. A. Steyermark, Act. Bot. Venez. 3: 72, 85, 86, & 156. 1968; Moldenke, Fifth Summ. 1: 111, 112, 122, 357, 432, & 433 (1971) and 2: 859. 1971; López-Palacios, Revist. Fac. Farm. Univ. Los Andes 15: 10 & 14-15. 1975; Moldenke, Phytologia 31: 348 & 349. 1975.

Recent collectors describe this plant as a shrub, 5 m. tall, with a rounded crown, the trunk 30 cm. in diameter at the base (Delgado), and the flowers borne in axillary spikes. They have encountered it in wooded areas at 170-380 meters altitude, flowering and fruiting in July. Ruiz-Terán & López-Palacios describe it as an "Árbol inerme, erecto, 7-12 m." or an "Arbolito, 4-5 m. Tronco cilíndrico, 30-35 cm de diámetro. Hojas cartáceas, verde intensas, lisas, lucientes y glabras por la haz, más claras y ligeramente velutinosas" or "subvelutinosas por el envés. Racimos axilares; eje inflorescencial y pedicelos verde subintensos. Cáliz verde subintenso. Corola blanca. Drupas bien desarrolladas pero inmaduras, rojo anaranjadas" or "tiernas de color rojo vivo y luciento, atropurpúreas al madurar. Uso local: setos vivos".

López-Palacios (1975) comments that "Yo extendiendo su zona de distribución al Estado Anzoátegui y al Delta Amacuro, al interpretar como pertenecientes a esta variedad las colecciones de Karsten [s.n.] y de Curran & Haman [1309 & 1316]... Hay ejemplares muy parecidos a C. decorum, p.e., Steyermark 88236 y 88829, pero en estos últimos el exterior del cáliz es casi glabro, mientras que en el C. decorum es muy indumentado, aun en los adultos; también la haz de las hojas del C. fruticosum var. brittonii es prácticamente glabra y lisa, mientras que de la del C. decorum es algo escabrosa."

Steyermark (1968) cites Steyermark 86556, 88236, & 88829.

Additional citations: VENEZUELA: Bolívar: Ruiz-Terán & López-Palacios 10874 (Z), 11548 (Ld), 11586 (Mi); J. A. Steyermark 86556 (N). Federal District: Delgado 421 (W-1908890).

## CITHAREXYLUM FRUTICOSUM var. SMALLII Moldenke

Additional bibliography: Moldenke, *Phytologia* 14: 434. 1967; Moldenke, *Fifth Summ.* 1: 93—95 & 426 (1971) and 2: 859. 1971; León & Alain, *Fl. Cuba*, imp. 2, 2: 300. 1974; Moldenke, *Phytologia* 31: 358, 359, 380, & 381. 1975.

Recent collectors describe this plant as a small tree, 3—10 m. tall, the bark gray and fissured, the flowers white and fragrant, the fruit shiny, yellow-green, turning to red and blackish or purplish-black, flowering and fruiting in July and September. They have found it growing in coppices, coppice-covered rocky slopes, and dry forests, at an altitude of 16 to 2000 meters. D. S. Correll 43516 is said to have been collected from a sapling. The corollas were white when fresh on Beard 315. On Jost van Dyke is it known as "fiddlewood" and its wood is used there to make charcoal.

Material has been distributed in some herbaria as typical *C. fruticosum* L.

Additional citations: BAHAMA ISLANDS: Andros: D. S. Correll 43484 (Ld), 43516 (Z). PUERTO RICO: E. L. Little 13389 (N), 13390 (N). PUERTO RIGAN ISLANDS: Palominos: E. L. Little 21581 (N, W—2673554). VIRGIN ISLANDS: Jost van Dyke: Beard 315 (N).

## CITHAREXYLUM FRUTICOSUM var. SUBSERRATUM (Sw.) Moldenke

Additional & emended synonymy: *Citharexylum subserratum* Sw. apud J. F. Gmel. in L., *Syst. Nat.*, ed. 13, imp. 1, 2: 943. 1789. *Citharexylum subserratum* Woodr. ex S. V. Rao, *Journ. Indian Bot. Soc.* 31: [297], sphalm. 1952.

Additional & emended bibliography: J. F. Gmel. in L., *Syst. Nat.*, ed. 13, imp. 1, 2: 943 (1789) and ed. 13, imp. 2, 2: 943. 1796; Rausch., *Nom. Bot.*, ed. 3, 173. 1797; Pers., *Sp. Pl.* 3: 356—357. 1819; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 1, 1: 550. 1893; Cooke, *Fl. Presid. Bombay*, ed. 1, 3: 437. 1906; Woodrow, *Gard. Trop.*, ed. 6, 436. 1910; Bres., *Ann. Mycol.* 18: 28. 1920; Haines, *Bot. Bihar & Orissa* 4: 708. 1922; Parker, *Forest Fl. Punj.*, ed. 2, 405. 1924; Petrak in Just, *Bot. Jahresber.* 48 (2): 238. 1930; Fedde & Schust. in Just, *Bot. Jahresber.* 60 (2): 571. 1941; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 2, 1: 550. 1946; S. V. Rao, *Journ. Indian Bot. Soc.* 31: [297], 303—[305], & 311—313, fig. 28—32. 1952; Parker, *Forest F. Punj.*, ed. 3, 577. 1956; Cooke, *Fl. Presid. Bombay*, ed. 2, imp. 1, 2: 513. 1958; Grindal, *Everyday Gard. India*, ed. 16, 183. 1960; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 3, 1: 550. 1960; Puri, Jain, Mukerjee, Sarup, & Kotwal, *Rec. Bot. Surv. India* 19: 108. 1964; Maheshwari & Singh, *Dict. Econom. Pl. India* 42. 1965; Cooke, *Fl. Presid. Bombay*, ed. 2, imp. 2, 2: 518. 1967; Moldenke, *Phytologia* 14: 434. 1967; Moldenke, *Résumé Suppl.* 15: 18. 1967; Moldenke, *Fifth Summ.* 1: 95, 102, 357, 427, 431, & 436 (1971) and 2: 766 & 859. 1971; Letouzey, *Man. Bot. Forest. Afr. Trop.* 2 (B): 361. 1972; León & Alain, *Fl. Cuba*, imp. 2, 2: 300. 1974; Moldenke, *Phytologia* 31: 337 & 391. 1975.

Additional illustrations: S. V. Rao, Journ. Indian Bot. Soc. 31: 304, fig. 28--32. 1952.

This plant is frequently recorded as cultivated in India; for instance, Woodrow (1910) says "as a garden tree is of very rapid growth on a sandy loam soil with free supply of water, and is easily propagated by cuttings". Cooke (1906) describes it as "A shrub, a native of the W. Indies, with tetragonal branches, elliptic or obovate subserrate leaves and short axillary nodding racemes of white fragrant flowers which appear in November and December." Puri and his associates (1964) also record it from Indian gardens. Rauschel (1797) records it from Hispaniola. In Italian gardens it is said to have its trunks attacked by the fungus, Pleurotus cavarae.

It is most probable that most, if not all, of the Indian records for this variety are based on misidentifications of C. spinosum L. The Chippendale 23682, distributed as C. fruticosum var. suberratum, is actually C. affine D. Don, while Solanki s.n. [20.10.68] is C. spinosum L.

It is very probable that the taxon here under discussion ought to be reduced to form, rather than varietal, rank.

#### CITHAREXYLUM FRUTICOSUM var. SUBVILLOSUM Moldenke

Additional bibliography: Moldenke, Phytologia 14: 433--435. 1967; Moldenke, Résumé Suppl. 15: 18. 1967; Moldenke, Fifth Summ. 1: 28, 93, 95, 100, 102, 104, 106--108, 111, 133, 357, 427, & 433 (1971) and 2: 859. 1971; A. L. Moldenke, Phytologia 23: 318. 1972; León & Alain, Fl. Cuba, imp. 2, 2: 300. 1974; Moldenke, Phytologia 28: 434 (1974) and 31: 359, 379, & 380. 1975.

Recent collectors have described this plant as a small tree, 2.5--5 m. tall, or a shrub, 1.5 m. tall, the stems about 7.5 cm. in diameter at breast height, bark light-gray, fissured, inflorescences pendent, and fruit red, finally turning black. They have found it growing in dry scrub woodland, in lower montane forests, hammock clearings, coppices, coastal thickets, and forming thickets on exposed windswept ridges, or occasional in scrub on pitted limestone flats in back of lower sea cliffs, at altitudes of 2--565 meters, flowering in July and fruiting in March and November. The corollas are said to have been white on Fosberg 42666 and Killip 41149; in fact, Killip describes the corolla-tube as 5 mm. and the corolla-lobes as 3 mm. long. The common name, "fiddlewood", is recorded for it.

It is very probable that this taxon ought to be reduced to form, rather than varietal rank.

Material has been misidentified and distributed in the University of Arizona herbarium as "Clerodendrum phlomoides L. f." and the label accompanying the specimen is inscribed "cultivated in Lodi gardens as a hedge; stamens long", a statement which can apply to Clerodendrum phlomidis L. f., but certainly not to the specimens mounted on the sheet!

Additional citations: FLORIDA: Dade Co.: Phillips 1122 (Tu--79043); P. B. Tomlinson s.n. [19-XII-67C] (Ft--2187). Monroe Co.:



Killip 41449 (Au—120957). Big Pine Key: Killip 31698 (W—1683196), 40702 (W—2051478). CUBA: Havana: León 6255 (W—2289148). JAMAICA: F. R. Fosberg 42666 (W—2637887); N. Wilson s.n. (Pd). VIRGIN ISLANDS: Jost Van Dyke: E. L. Little 21944 (W—2705280). Tortola: E. L. Little 16390 (N), 26082 (N, W—2690337). CULTIVATED: India: Lal s.n. [Lodi gardens] (Tu—114300).

CITHAREXYLUM FRUTICOSUM var. VILLOSUM (Jacq.) O. E. Schulz

Additional synonymy: Citharexylon fruticosum var. villosum

Schulz ex C. S. Sarg., Man. Trees N. Am., ed. 2, imp. 1, 2: 864. 1922. Citharexylum ciliare Moran ex Moldenke, Phytologia 6: 389, in syn. 1958. Citharexylum villosum Willd. ex Moldenke, Phytologia 25: 236, in syn. 1973.

Additional & emended bibliography: J. F. Gmel. in L., Syst. Nat., ed. 13, imp. 1, 2: 943 (1789) and ed. 13, imp. 2, 2: 943. 1796; Rausch., Nom. Bot., ed. 3, 173. 1797; Desf., Tabl. Écol. Bot., ed. 2, 65. 1815; H.B.K., Nov. Gen. & Sp. Pl., ed. folio, 2: 209 (1817) and ed. quarto, 2: 258. 1818; Pers., Sp. Pl. 3: 356. 1819; Voigt, Hort. Suburb. Calc. 473. 1845; A. Wood, Am. Bot. & Flor., ed. 1, imp. 1, 235 (1870), ed. 1, imp. 2, 235 (1871), ed. 1, imp. 3, 235 (1872), ed. 1, imp. 4, 235 (1873), ed. 1, imp. 5, 235 (1874), and ed. 1, imp. 6, 235. 1875; O. R. Willis in A. Wood, Am. Bot. & Flor., ed. 2, 235. 1889; Kuntze, Rev. Gen. Pl. 2: 504. 1891; T. S. Brandeg., Proc. Calif. Acad. Sci., ser. 2, 3: 163. 1893; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 550. 1893; Barnhart, Bull. Torrey Bot. Club 29: 590. 1902; C. S. Sarg., Man. Trees N. Am., ed. 1, 788 & 820 (1905), ed. 2, imp. 1, 864—865 & 901 (1922), ed. 2, imp. 2, 2: 864—865 & 901 (1926), and ed. 2, imp. 3, 2: 864—865 & 901. 1933; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 550. 1946; C. S. Sarg., Man. Trees N. Am., ed. 2, imp. 4, 2: 864—865 & 901. 1949; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 550. 1960; C. S. Sarg., Man. Trees N. Am., ed. 2, imp. 5, 2: 864—865 & 901. 1961; J. F. Morton, Wild Pl. Surviv. S. Fla. 32. 1962; A. H. Liogier, Rhodora 67: 350. 1965; C. S. Sarg., Man. Trees N. Am., ed. 2, imp. 6, 2: 864—865, 901, & 925. 1965; Moldenke, Phytologia 14: 435. 1967; Moldenke, Fifth Summ. 1: 29, 93, 95, 100, 102, 104, 106—109, 357, 427, 428, 431—435, 437, 438, & 474 (1971) and 2: 859. 1971; A. L. Moldenke, Phytologia 23: 318. 1972; Moldenke, Phytologia 25: 236. 1973; León & Alain, Fl. Cuba, imp. 2, 2: 300. 1974; Moldenke, Phytologia 31: 340, 359, 380, & 381. 1975.

Recent collectors describe this plant as a bush, shrub, or tree, 1.5—10 m. tall, the trunk to 30 cm. in diameter at breast height, the bark light-brown, fissured, shreddy, the leaves hairy on both surfaces, the flowers very fragrant, and the fruit orange. They have found it growing in serpentine barrens, in trailsides thickets on limestone hills, on rocky hillsides and hillsides, and in seasonally deciduous forests, at altitudes of 300—450 meters, flowering in March, June, and July, and fruiting in August and September. The corollas are said to have been white on

Howard, Briggs, Kamb, Lane, & Ritland 374, Liogier 11785 & 12475, and Little 26099. The vernacular name, "bois guitare velu", is reported.

It should be noted that the H.B.K. references in the bibliography above have been authenticated by Barnhart (1902).

Material of this variety has been distributed in many herbaria as typical C. fruticosum L. On the other hand, the Curtiss 1969, A. P. Garber s.n. [1877], and C. Wright 438, distributed as this variety, are actually typical C. fruticosum L., while Shafer 1150 is C. fruticosum f. bahamense (Millsp.) Moldenke.

Additional citations: CUBA: Las Villas: Howard, Briggs, Kamb, Lane, & Ritland 374 (Ba). HISPANIOLA: Dominican Republic: A. H. Liogier 11785 (Id, N), 12475 (Id, N, N, N, N, N) VIRGIN ISLANDS: St. Thomas: Stimson 1466 (Mi, N). Virgin Gorda: E. L. Little 26099 (N, W--2690354).

#### CITHAREXYLUM FULGIDUM Moldenke

Additional bibliography: Moldenke, Phytologia 13: 290-291.1966; Moldenke, Fifth Summ. 1: 68 (1971) and 2: 859. 1971.

Rosas R. describes this plant as a shrub, 3 m. tall, with white flowers, and found it growing in secondary vegetation at 2210 m. altitude, in flower in July.

Additional citations: MEXICO: Veracruz: Rosas R. 544 (Z).

#### CITHAREXYLUM GLABRUM (S. Wats.) Greenm.

Additional & emended bibliography: Durand & Jacks., Ind. Kew. Suppl. 1, imp. 1, 187 (1902), 1, imp. 2, 187 (1941), and 1, imp. 3, 187. 1959; Moldenke, Phytologia 13: 291. 1966; Moldenke, Fifth Summ. 1: 68 & 433 (1971) and 2: 525 & 859. 1971.

Hinton encountered this plant along a riverbank. The corollas are said to have been "creamy-white" on Hinton 13825.

Additional citations: MEXICO: Guerrero: Hinton 13825 (Se--120073, Tu--112121), 14825 (Tu--98516). Jalisco: Diquet s.n. (W--2565947).

#### CITHAREXYLUM GLAZIOVII Moldenke

Additional bibliography: Moldenke, Phytologia 13: 291. 1966; Moldenke, Fifth Summ. 1: 447 & 357 (1971) and 2: 768 & 859. 1971.

The Hatschbach 25611, distributed as C. glaziovii, is actually C. solanaceum Cham.

#### CITHAREXYLUM GLEASONIANUM Moldenke

Additional bibliography: Moldenke, Phytologia 13: 291. 1966; Moldenke, Fifth Summ. 1: 68 & 357 (1971) and 2: 859. 1971.

Rosas R. encountered this species in secondary vegetation at 2300 meters altitude, fruiting in November. The fruit is described as red, 1 cm. in diameter, and the vernacular name, "naranjillo", is reported.

Additional citations: MEXICO: Veracruz: Rosas R. 862 (Z).

## CITHAREXYLUM HERRERAE Mansf.

Additional bibliography: Fedde & Schust. in Just, Bot. Jahresber. 53 (1): 1071 [1053]. 1932; Wangerin in Just, Bot. Jahresber. 58 (1): 845 [275]. 1938; Fedde in Just, Bot. Jahresber. 58 (2): 514. 1939; Anon., U. S. Dept. Agr. Bot. Subj. Index 15: 14355. 1958; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 668, 671, & 675. 1960; Moldenke, Phytologia 13: 291. 1966; Moldenke, Fifth Summ. 1: 140 & 429 (1971) and 2: 859. 1971.

Macbride (1960) describes this species as a tree, 3-5 m. tall, cultivated in Peru, "the beautiful red fruiting branches used for ornamentation of the nacimientos". He reports the vernacular name, "huariruru", and cites Herrera 677 and Vargas 8753 & 9137 from Apurimac and Cook & Gilbert 1888, Ferreyra 9856, Herrera 1461a, Pennell 13606, and Scoukup 322 from Cuzco, Peru.

## CITHAREXYLUM HEXANGULARE Greenm.

Additional & amended bibliography: Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 549. 1893; P. C. Standl., Trop. Woods 37: 37. 1934; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 549. 1946; Metcalfe & Chalk, Anat. Dicot. 1033. 1950; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 549. 1960; Gómez Pompa, Estud. Bot. Reg. Misantla 93. 1966; Moldenke, Phytologia 11: 435. 1967; Gibson, Fieldiana Bot. 24 (9): 188-189. 1970; Moldenke, Fifth Summ. 1: 68, 78, 81, 82, 85, 87, 357, 428, 431, 433, & 436 (1971) and 2: 859. 1971; Moldenke, Phytologia 31: 353. 1975.

Recent collectors describe this species as a shrub, 1-4 m. tall, or a tree, 10-13 m. tall, the trunk 5-25 cm. in diameter, and the fruit orange. The corollas are mostly described as white (e.g., Contreras 8959 & 9068, Lundell 6969, and Molina R., Williams, Burger, & Wallenta 17478). They have encountered it on riverbanks, in high or high evergreen forests, in clearings, in cutover forest areas in barrancas, and on flat ground in materral or in potreros, at altitudes of 7-1000 meters. Ventura A. comments that he found it to be "very rare" in Veracruz, Mexico. In addition to the months previously reported by me, it has been found blooming in February, March, August, and September and fruiting in February. Gomex Pompa (1966) reports the vernacular name, "chachalco", for it. The Molina R., Williams, Burger, & Wallenta 17478 exhibits unusually broad leaves.

Material of C. hexangulare has been misidentified and distributed in some herbaria as C. ellipticum Sessé & Moc. or as C. viride Moldenke.

Additional citations: MEXICO: Chiapas: C. L. Lundell 17845 (Au-278559, Ld, Ld); F. Miranda 6376 (W-2508469). Jalisco: R. McVaugh 20632 (Ip, N), 23162 (Ip). Veracruz: Sousa 3409 (M1); Ventura A. 2807 (M1), 3333 (M1). GUATEMALA: Izabal: Contreras 8959 (Ld, Ld), 9068 (Ld, Ld, Ld). BRITISH HONDURAS: C. L. Lundell 6969 (Tu-121754). COSTA RICA: Alajuela: Molina R., Williams, Burger, & Wallenta 17478 (N).

## CITHAREXYLUM HIDALGENSE Moldenke

Additional synonymy: Citharexylum hidalguense Moldenke, *Phytologia* 28: 454, in syn. 1974.

Additional bibliography: Moldenke, *Phytologia* 14: 435. 1967; Moldenke, *Fifth Summ.* 1: 68 & 427 (1971) and 2: 859. 1971; Moldenke, *Phytologia* 28: 448 & 454. 1974.

Recent collectors describe this plant as a shrub, 1--2 m. tall, or a small tree, 6.5--8 m. tall, with red or "red-black" translucent fruit. They have found it in cornfields, in pine-oak woods with occasional firs, in wet barrancas, deep red sandy soil, and mesophilous woods of Liquidambar, Quercus, and Pinus, at altitudes of 1665--2300 meters. González Quintero found it on "ladera de roca cristalina con vegetación de encinar". In addition to months previously reported by me, it has been found flowering in March and fruiting in May, July, and October. The corollas are described as having been "white" on Hinton 15606, but "pinkish-white" on Hernández M. & Trigos 1151. Moore & Wood refer to the fruit as "berries", but they are drupes.

Material has been misidentified and distributed in some herbaria under the name C. quadrangulare Jacq.

Additional citations: MEXICO: Hidalgo: González Quintero 474 (Ip), 999 (Ac, Ws), 2427 (Z); Moore & Wood 4339 (W--2594872); J. Rzedowski 12526 (Mi); Vela G. 290 (Ip). México: Hinton 15606 (Tu--112123). Michoacán: Hinton 15606 (Se--120072). Puebla: C. L. Lundell 12642 (Au--280304). Veracruz: Hernández M. & Trigos 1151 (Mi); Nevling & Gómez-Pompa 1928 (Ac); Vela G. 642 (Ip), 727 (Ip). CULTIVATED: Egypt: Täckholm & Elsayed s.n. [24/5/1962] (Gz, Gz, Gz).

## CITHAREXYLUM HINTONI Moldenke

Synonymy: Citharexylum hintonii Moldenke ex Hinton & Rzedowski, *Journ. Arnold Arb.* 53: 167. 1972.

Additional bibliography: Moldenke, *Phytologia* 14: 435. 1967; Moldenke, *Fifth Summ.* 1: 68 (1971) and 2: 859. 1971; Hinton & Rzedowski, *Journ. Arnold Arb.* 53: 167. 1972; Moldenke, *Phytologia* 23: 428. 1972.

It should be noted here that many Hinton collections in various herbaria are inscribed "Hinton and al." on their labels as collectors. However, in view of Hinton's own confession that the "al." refers to his faithful mule, it does not seem necessary to cite the collections other than just as Hinton collections.

Additional citations: MEXICO: México: Hinton 7514 (Tu--112121).

## CITHAREXYLUM HIRTELLUM Standl.

Additional & emended bibliography: A. W. Hill, *Ind. Kew. Suppl.* 8: 53. 1933; Fedde & Schust. in *Just, Bot. Jahresber.* 57 (2): 401. 1938; Moldenke, *Phytologia* 14: 435 (1967) and 17: 113. 1968; Moldenke, *Résumé Suppl.* 16: 3 & 4. 1968; Gibson, *Fieldiana Bot.* 24 (9): 184, 188, & 189 (1970) and 32: 176--177. 1970; Hocking, *Excerpt. Bot. A.15*: 422. 1970; Fryxell, *Biol. Abstr.* 52: 3079. 1971;



Moldenke, Fifth Summ. 1: 68 (1971) and 2: 859. 1971; Troncoso, Darwiniana 16: 625. 1971; Moldenke, Phytologia 23: 415 (1972), 25: 236 (1973), 27: 84 (1973), and 31: 347. 1975.

Gibson (1970) cites only Karling 9 from British Honduras, but notes that "This has sometimes been confused with C. cooperi Standley, perhaps partly because C. hirtellum was not understood to be heterostylous. The calyx of C. cooperi, which is 3—4 mm. long, is always conspicuously and evenly dentate. In addition, the racemes of C. cooperi branch to form short panicles, 2—8 cm. long, and the leaves usually have 8—10 pairs of lateral veins."

The Dwyer, Hayden, & Kirkbride 7561, distributed as C. hirtellum, is actually Aegiphila magnifica var. pubescens Moldenke; Dwyer & Hayden 7762, Gentle 238, 435, & 1177, P. C. Standley 55687, and Woodson & Schery 755 (some of which were previously erroneously cited by me as C. hirtellum) are actually C. cooperi Standl.; and J. A. Steyermark 41816 & 41818 are C. hirtellum var. guatemalense Moldenke.

Additional citations: MOUNTED CLIPPINGS: Standl., Field Mus. Publ. Bot. 4: 257. 1929 (W).

#### CITHAREXYLUM HIRTELLUM var. GUATEMALENSE Moldenke

Synonymy: Citharexylum guatemalense (Moldenke) Gibson, Fieldiana Bot. 32: 176—177. 1970. Citharexylum guatemalanense Gibson, Fieldiana Bot. 32: 177, sphalm. 1970.

Bibliography: Moldenke, Phytologia 17: 113. 1968; Moldenke, Résumé Suppl. 16: 3. 1968; Gibson, Fieldiana Bot. 24: 188 (1970) and 32: 176—177. 1970; Hocking, Excerpt. Bot. A.15: 422. 1970; Anon., Biol. Abstr. 52 (6): B.A.S.I.C. S.46. 1971; Fryxell, Biol. Abstr. 52: 3079. 1971; Moldenke, Fifth Summ. 1: 78 & 433 (1971) and 2: 859. 1971; Moldenke, Phytologia 25: 236. 1973; Heslop-Harrison, Ind. Kew. Suppl. 15: 33. 1974.

Steyermark describes this plant as a shrub, 15 feet tall, the leaves firmly chartaceous, rich-green and shining above, pale gray-green beneath, the calyx pale-green, and the fruit dull orange-green. He encountered it at 50 m. altitude, flowering and fruiting in December.

The variety differs from the typical form of the species in having the vein and veinlet reticulation on the lower leaf-surface very sparsely setulose with whitish, stiff, straight, unbranched, sharp-pointed, spreading hairs, and the lamina itself glabrate. Gibson (1970) says "Although the flowers of C. guatemalense resemble those of the long-styled form of C. hirtellum Standley in size of calyx and corolla, the style of C. hirtellum is 4—5 mm. long, its calyx is shallowly sinuate and denticulate or irregularly torn, and its leaves are smaller and hirtellous below rather than pilose." She feels that the taxon deserves specific rank. Herbarium material in the past has been confused with, distributed as, and even cited by me as C. hirtellum Standl.

Citations: GUATEMALA: Izabal: J. A. Steyermark 41816 (N), 41818 (N--type).

xCITHAREXYLUM HYBRIDUM Moldenke

Additional bibliography: Moldenke, *Phytologia* 14: 435. 1967; Moldenke, *Fifth Summ.* 1: 109, 111, 433, & 436 (1971) and 2: 859. 1971; Moldenke, *Phytologia* 28: 436 (1974) and 31: 382. 1975; López-Palacios, *Revist. Fac. Farm. Univ. Los Andes* 15: 14 & 15. 1975.

Breteler 4314, from Falcón, Venezuela, is regarded by López-Palacios as representing x*C. hybridum*, but I feel that it more probably represents *C. mirifolium* Moldenke. López-Palacios asserts that the hybrid occurs with its parents in lowland areas of Venezuela, but I have as yet seen only material of one of its supposed parents, *C. spinosum*, from Falcón. For the time being, at least, I feel it better to regard the Breteler collection as *C. mirifolium*. Commenting on my description of this hybrid in a previous paper, López-Palacios (1975) affirms that "Lo anterior es cierto, y alguna vez pensé colocar aquí el material procedente de la Península de Paraguaná, como se expuso al tratar de *C. fruticosum*, pero después de estudiar las poblaciones y recolectar más abundante material, creo que sea en ese taxon en donde debe colocarse. Dejo, pues, en suspenso, sin incluirlo ni excluirlo en forma definitiva de la Flora de Venezuela al *C. hybridum*, hasta tanto haya alguien que tenga voluntad y tiempo de hacer el correspondiente recuento de cromosomas."

CITHAREXYLUM ILICIFOLIUM H.B.K., *Nov. Gen. & Sp. Pl.*, ed. folio, 2: 208. 1817.

Emended synonymy: Cytherexylum ilicifolium H.B.K. ex Moldenke, *Phytologia* 6: 412, in syn. 1958.

Additional & emended bibliography: H.B.K., *Nov. Gen. & Sp. Pl.*, ed. folio, 2: 208 (1817) and ed. quarto, 2: 256--257. 1818; Bocq., *Adansonia*, ser. 1, 2: [Rev. Verbénac.] 223. 1863; Gaill., *Genre Meliola* 49. 1892; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 1, 1: 549. 1893; Barnhart, *Bull. Torrey Bot. Club* 25: 590. 1902; Theiss. & Syd., *Ann. Mycol. Berlin* 15: 461. 1917; Stev., *Ann. Mycol. Berlin* 25: 466. 1927; Wilder, *Frag. Path* 206 & 386. 1932; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 2, 1: 549. 1946; Hansford, *Sydowia* 10: 48. 1957; R. C. Foster, *Contrib. Gray Herb.* 184: 169. 1958; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 3, 1: 549. 1960; J. F. Macbr., *Field Mus. Publ. Bot.* 13 (5): 669, 671, 672, 674, 676, 678, & 679. 1960; Hansford, *Sydowia Ann. Myc.*, ser. 2, *Beih.* 2: 685. 1961; Hocking, *Excerpt. Bot. A.* 12: 426. 1967; Moldenke, *Phytologia* 14: 435. 1967; Moldenke, *Biol. Abstr.* 49: 4199. 1968; Dennis, *Kew Bull. Addit. Ser.* 3: 177, 258, & 289. 1970; Moldenke, *Fifth Summ.* 1: 135, 140, 181, 357, 429, 474, & 487 (1971) and 2: 769 & 859. 1971; Hegnauer, *Chemotax. Pfl.* 6 [Chem. Reihe 21]: 661. 1973; Troncoso, *Darwiniana* 18: 373, 408, & 411. 1974; Wilder, *Frag. Gard.* 206 & 386. 1974; Moldenke, *Phytologia* 31: 339, 340, & 350. 1975.

Recent collectors describe this plant as a "shrub 6--10 feet tall and wide" or as a tree, 18 feet tall, the trunks several from the base, the largest about 6 cm. in diameter, and have found it

flowering in April, July, and December.

It should be noted that the H.B.K. references cited above have been authenticated as to actual dates of publication by Barnhart (1902).

Hansford (1961) records the fungus, Asteridiella lagerheimii (Gaill.) Hansford, as parasitic on Citharexylum ilicifolium in Ecuador, based on Lagerheim s.n. In his 1970 work he further records Coinostelium quitense Syd. (a fungus which Cummins maintains is a species of Prospodium) and Phyllachora lagerheimiana Rehm. on this host, also in Ecuador. In the case of the latter he notes "described in error as Ilex scopulorum", possibly implying that Ilex scopulorum H.B.K. and Citharexylum ilicifolium H.B.K. are conspecific. Dr. Alicia Lourteig, however, in a letter to me dated September 20, 1971, says that she has examined the types of both species in the Paris herbarium and finds that they are not conspecific! One is definitely an Ilex, "perhaps conspecific with I. crassifolia H.B.K."

Macbride (1960) cites only Weberbauer 3285 from Ancash, Peru, and gives the overall distribution of the species as "Ecuador to Bolivia". He comments that the species is "Perhaps not in Peru, at least in typical form, but Moldenke refers to it collections by Gay and by Dombey, without, however, known localities; the similar Peruvian shrub could prove to be a part, genetically considered; I have not seen the Weberbauer collection [determined by Hayek] in the final preparation of this account."

Killip, in a notation on the United States National Herbarium specimen of Jameson s.n., says "Probably [the] plant cited by Jameson as Berberis darwinii, but not that sp."

Material of C. ilicifolium has also been misidentified and distributed in some herbaria under the name C. barbinierve Cham. and even as "Berberidaceae". On the other hand, the R. W. Read 1341 [Herb. Fairchild Trop. Gard. X-13-9a], distributed as C. ilicifolium, is actually C. berlandieri B. L. Robinson.

Additional citations: ECUADOR: Azuay: Rose, Pachano, & Rose 22964 (W--1022537). Pichincha: Herb. Univ. Cent. Quito 2320 (Mu); D. H. Knight 1147 (Ws, Z). Province undetermined: Jameson s.n. (W--534611). CULTIVATED: California: Jerabek s.n. [Huntington Gardens, June 1945] (Sd--36518), s.n. [Franceschi Park, July 1945] (Sd--36693); R. Moran 2358 (Ba), 2382 (Ba), 2775 (Ba); Reynolds, Schroeter, & McClintock 186 (Ba). Ecuador: Ewan 16413 (S).

CITHAREXYLUM ILTISII Moldenke, Résumé Suppl. 17: 12, nom. nud. 1968; Phytologia 18: 70--71. 1969.

Bibliography: Moldenke, Résumé Suppl. 17: 12. 1968; Moldenke, Biol. Abstr. 50: 6338. 1969; Moldenke, Phytologia 18: 70--71. 1969; Hocking, Excerpt. Bot. A.15: 422. 1970; Moldenke, Fifth Summ. 1: 140 (1971) and 2: 859. 1971; Heslop-Harrison, Ind. Kew. Suppl. 15: 22. 1974.

Citations: PERU: Apurimac: Iltis & Ugent 678 (Ws—type, Z—  
isotype, Z—photo of type).

CITHAREXYLUM INTEGERRIMUM (Kuntze) Moldenke

Additional bibliography: Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 571. 1941; Moldenke, Phytologia 6: 415—416. 1958; Moldenke, Fifth Summ. 1: 87, 431, & 437 (1971) and 2: 859. 1971.

Kuntze (1891) was of the opinion that C. pentandrum Vent. is conspecific with this taxon; if true, then Ventenat's name would have priority. Kuntze says: "C. villosum Jacq. var. integerrimum O. Ktze. Costaric. Diese Art, wozu auch C. pentandrum Vent. gehören dürfte, ist durch die kurz behaarte Inflorescenz mit subsessilen Blüthen, trichterigen kurzgezähnten Kelchen, sehr kurzen Corollen, deren Röhre den Kelch kaum überragt, schwach behaarte lanzettliche (1: 2 1/2 — 5) nicht lederige Blätter ausgezeichnet; die Blätter ändern etwas gezähnt bis ganzrandig. Diese Art findet sich auch in Venezuela und Mexico. Dagegen ist C. villosum [i.e., C. fruticosum L.] aus Florida im Kew herb. Curtis 1969 = C. cinereum L., welches ledrige, stark netzaderige kahle Blätter, hervorragende längere Corollenröhre zeigt. — Die Schauer'sche Eintheilung der Arten in solche mit racemis nutantibus und racemis erectis ist werthlos."

The Brenes 12322, distributed as C. integerrimum, is actually C. viride Moldenke.

x CITHAREXYLUM JAMAICENSE Moldenke

Additional bibliography: Moldenke, Phytologia 13: 310. 1966; G. Taylor, Ind. Kew. Suppl. 13: 31. 1966; Moldenke, Fifth Summ. 1: 100, 432, & 433 (1971) and 2: 859. 1971; A. L. Moldenke, Phytologia 23: 318 (1972) and 31: 346 & 359. 1975.

Recent collectors describe this plant as a tree, 2--5 m. tall, or an occasional shrub, the fruit green, then orange to more or less orange-reddish or reddish-brown, then becoming blue-black or dark-brown. They have encountered it on limestone hills and, more particularly, on the "precipitous eastern slope of arid limestone hills", at altitudes of 1300--2900 feet, fruiting in July and August. Hesperheide and his associates report "only one seen", but the Anderson & Sternberg 3094 collection is so heavily fruited that it seems difficult to believe that the taxon is really a hybrid.

Material has been misidentified and distributed in some herbaria as C. caudatum L. and as C. fruticosum L.

Additional citations: JAMAICA: Anderson & Sternberg 3094 (W—2517220); Hesperheide, Hesperheide, Calver, & Ricklefs 976 (Mi), 1278 (Au—272091, Mi, N), 1391 (Mi, N).

CITHAREXYLUM JÜRGENSENII (Lillo) Moldenke

Additional bibliography: Moldenke, Phytologia 13: 293. 1966; Moldenke, Fifth Summ. 1: 195, 429, 433, 437, & 487 (1971) and 2: 776 & 859. 1971; Troncoso, Darwiniana 18: 373, 375, & 408. 1974.



Troncoso (1974) cites only Venturi 3988 from Tucumán in the Darwinion herbarium at San Isidro, Argentina.

CITHAREXYLUM JURGENSENI Briq.

Additional bibliography: Moldenke, *Phytologia* 13: 293--294. 1966; Moldenke, *Fifth Summ.* 1: 68 & 434 (1971) and 2: 776 & 859. 1971.

McVaugh reports this species as "scarce" in the barrancas of Nayarit, Mexico.

Additional citations: MEXICO: Nayarit: R. McVaugh 18920 (Ip, N).

CITHAREXYLUM KARSTENI Moldenke

Additional synonymy: Citharexylum karstenii Moldenke ex López-Palacios, *Revist. Fac. Farm. Univ. Los Andes* 14: 22. 1974.

Additional bibliography: Moldenke, *Phytologia* 13: 294. 1966; Moldenke, *Fifth Summ.* 1: 115 & 429 (1971) and 2: 774 & 859. 1971; López-Palacios, *Revist. Fac. Farm. Univ. Los Andes* 14: 22 (1974) and 15: 11 & 15--16. 1975; Moldenke, *Phytologia* 31: 349, 382, & 394. 1975.

A much-branched tree or shrub, 5 m. tall, according to recent collectors. The corollas are described as white by García-Barriga and the fruits purple. He found the plant growing at altitudes of 2120--2400 meters, flowering and fruiting in November.

The Barclay, Juajobioy, & Gama 3453, distributed as typical C. karsteni, is probably better regarded as representing var. lanceolatum Moldenke.

Additional citations: COLOMBIA: Cundinamarca: García-Barriga 17543 (N, W--2569410A).

CITHAREXYLUM KARSTENI var. LANCEOLATUM Moldenke

Additional synonymy: Citharexylum karstenii var. lanceolatum Moldenke ex López-Palacios, *Revist. Fac. Farm. Univ. Los Andes* 14: 22. 1974.

Additional bibliography: Moldenke, *Phytologia* 13: 294. 1966; Moldenke, *Fifth Summ.* 1: 115 & 429 (1971) and 2: 859. 1971; López-Palacios, *Revist. Fac. Farm. Univ. Los Andes* 14: 22 (1974) and 15: 11 & 15--16. 1975; Moldenke, *Phytologia* 31: 349, 382, & 394. 1975.

Recent collectors describe this plant as an unarmed shrub or tree, 1--7 m. tall, evergreen, the bark reddish-brown, the leaves green or dark-green and shiny above, pale beneath with velvety pubescence, the calyx green, and the corolla actinomorphic and infundibular. They have encountered it in shrubby pastures and along roadsides near cleared slopes, at altitudes of 800--1550 meters, flowering from April to June and in September. The corollas are said to have been "greenish-yellow" on Ruiz-Terán & López-Figueiras 1793, "yellow-green" on Barclay, Juajobioy, & Gama 3453, and "pale-yellow" on Barclay, Juajobioy, & Gama 3515.

López-Palacios describes the plant as an "Arbusto de 1—3 m. hasta árbol bajo de unos 5—7 m. Hojas firmemente membranáceas, oblongo lanceoladas, glabras por la haz, pubescentes por el envés, por lo general estrechas, pero la jóvenes más anchas grandes y robustas. Racimos terminales simples o ligeramente ramificados, a veces agrupados en el extremo de la ramas o axilares en las axilas superiores. Cáliz subtrunco, verde claro, pubescente al exterior. Corola verde amarillenta, con la garganta barbelada. Bayas anaranjadas que se vuelven negras." He cites (1974) López-Palacios 1077 from Mérida and 3573 from Táchira, Venezuela, deposited in the herbarium of the Universidad de Los Andes. In his excellent 1975 work he cites Ruiz-Terán & López-Figueiras 1793 and Ruiz-Terán & López-Palacios 6213 and comments that "Considero que quien trata la flora colombiana debe estudiar de nuevo los tipos de uno y otro. Al determinar yo los primeros registros para Venezuela, los atribuí a C. dawei. Siguiendo el autorizado criterio del Dr. Moldenke los situó aquí. Sólo ha sido colectado en Mérida, en las localidades de Pueblo Nuevo y Chiguará. Es muy similar en hábito y portto a C. subthyrsoideum, del que fácilmente se diferencia por el indumento. Hay una novísima colección mía, López-Palacios 3533 (MERF), del Táchira".

Material of this taxon has been misidentified and distributed in some herbaria as C. dawei Moldenke.

Additional citations: COLOMBIA: Cundinamarca: Earclay, Jua-jibioy, & Gama 3453 (W—2702181), 3515 (W—2702142). VENEZUELA: Mérida: Ruiz-Terán & López-Figueiras 1793 (N); Ruiz-Terán & López-Palacios 6213 (N). Táchira: López-Palacios 3573 (Id, Z).

#### CITHAREXYLUM KERBERI Greerm.

Additional bibliography: Moldenke, *Phytologia* 13: 294. 1966; Moldenke, *Fifth Summ.* 1: 68 & 357 (1971) and 2: 859. 1971.

#### CITHAREXYLUM KOBUSKIANUM Moldenke

Additional bibliography: J. F. Macbr., *Field Mus. Publ. Bot.* 13 (5): 670, 671, & 676. 1960; Moldenke, *Phytologia* 13: 294. 1966; Moldenke, *Fifth Summ.* 1: 140 (1971) and 2: 859. 1971.

Macbride (1960) cites Jelsky s.n. & Raimondi 6303 from Cajamarca and López Miranda 648 from La Libertad, Peru.

#### CITHAREXYLUM KRUKOVII Moldenke

Additional bibliography: Moldenke, *Phytologia* 6: 425—426. 1958; Moldenke, *Fifth Summ.* 1: 147 (1971) and 2: 859. 1971.

#### CITHAREXYLUM KUNTHIANUM Moldenke

Emended synonymy: Citharexylum tomentosum H.B.K., *Nov. Gen. & Sp. Pl.*, ed. folio, 2: 209. 1817 [not C. tomentosum Klotzsch & Karst., 1940, nor Moc. & Sessé, 1893, nor Poir., 1811, nor Sessé & Moc., 1831].

Additional & emended bibliography: H.B.K., *Nov. Gen. & Sp. Pl.*, ed. folio, 2: 209 (1817) and ed. quarto, 2: 258. 1818; Jacks. in

Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 550. 1893; Barnhart, Bull. Torrey Bot. Club 29: 590. 1902; Pittier, Man. Pl. Usuel. Venez. 386 & 423. 1926; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 550 (1946) and imp. 3, 1: 550. 1960; Moldenke, Phytologia 14: 507. 1967; Moldenke, Résumé Suppl. 16: 14. 1967; Moldenke, Fifth Summ. 1: 115, 122, 357, 431, & 437 (1971) and 2: 859. 1971; López-Palacios, Revist. Fac. Farm. Univ. Los Andes 15: 12, 16, & 21. 1975; Moldenke, Phytologia 31: 382. 1975.

It should be noted here that the corrected H.B.K. reference dates cited above were authenticated by Barnhart (1902).

Recent collectors describe this plant as a tree, 2-3 meters tall, with white flowers and red fruit, and have found it growing at 1178-2000 meters altitude, flowering in April, and fruiting in January.

López-Palacios (1975) comments relating to the possibility of this species occurring in Venezuela: "En todo el material por mí examinado sólo se le atribuyen dos colecciones: Delgado 201 (VEN), Selvas de El Avila, El Papelón, Dbre. 14-38, y otro ejemplar del Edo. Trujillo, de colector indeterminado, 10769, existente en el herbario de Viena. Aunque en muchas partes he visto atribuidos a C. kunthianum y a C. subflavescens indistintamente los mismos especímenes, no puedo pronunciarme sobre si sean co-específicos o no, pues aún no he hecho el estudio ni de los tipos ni de las poblaciones, ambos originariamente de la Flora Colombiana. Lo que sí puedo asegurar con absoluta convicción es que Venezuela, la población tanto del Distrito Federal como fe los Andes es homogénea y pertenece en su totalidad al C. subflavescens. La colección de Delgado ha sido colocada por mí en esta taxon, pues en nada difiere de las de la Colonia Tovar (p.e. Fendler 1023; Moritz 1777), e igual cosa acontece con ejemplar de Viena, que concuerda en absoluto con las colecciones provenientes de Trujillo, como Matos 1136, de Cabimbu, arriba de San Miguel. Excluyo, pues, el C. kunthianum de la Flora de Venezuela."

Fernández & Mora report the vernacular name, "pendo", for C. kunthianum.

Material has been misidentified and distributed in some herbaria as Cordia sp. On the other hand, the Mahdi s.n. [23/11/1963], distributed as C. tomentosum, is not verbenaceous.

Additional citations: COLOMBIA: Cauca: Alston 8300 (W-2370018). Nariffo: Fernández & Mora 1195 (N).

#### CITHAREXYLUM LAETUM Hiern

Additional & emended bibliography: Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 550 (1893), imp. 2, 1: 550 (1946), and imp. 3, 1: 550. 1960; Angely, Fl. Anal. Paran., ed. 1, 578. 1965; Moldenke, Phytologia 13: 295. 1966; Angely, Fl. Anal. & Fitogeogr. Est. S. Paulo, ed. 1, 830 & iv. 1971; Moldenke, Fifth Summ. 1: 148, 429, & 433 (1971) and 2: 859. 1971.

[to be continued]